

ABSTRACT

The present invention discloses a method of determining a route for transmitting a signal through a network. The method comprises obtaining and storing network and demand data. The demand data is processed using a shortest path routing method to obtain an initial route and the network data is updated accordingly. An initial cost based on the initial route is computed. The initial route is returned to the network and the network data is again updated with regard to increasing spare capacity. The demand data is re-processed using a constrained diverse shortest path routing method to obtain a final route until a stop criterion is satisfied. A final cost based on the final route is computed.